

INDUS GTTM

GT Estate Word Processor
for Commodore

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INTRODUCTION

Written communication, one of the most fundamental human endeavors, has provided the basis for efficient and rapid transfer of knowledge. Anyone who does any type of written communication, from letters and poems to book reports and monographs, is a word processor.

Three elements are involved in word processing; the instrument written with, the material written on, and the person writing. The most important, the human element, involves creativity, intuition and assimilation of information beyond the capabilities of any computer.

The GT Estate Wordprocessor word processor enables you to use your personal computer to replace the mechanical aspects of writing. It provides capabilities of movement, organization and storage of text that would be difficult, time-consuming and inefficient with ordinary paper and pencil.

The GT Estate Wordprocessor is designed to be used with the Commodore 64 microcomputer with one disk drive. The GT Estate Wordprocessor can be used by anyone who is familiar with the keyboard, and was meant primarily for in-home use, but can be useful for small business and academic applications.

WHERE DO I START? DETAILED OR SHORT INSTRUCTIONS?

This manual will show you how to use the features of the GT Estate Wordprocessor. If you are already familiar with word processing programs or are impatient to start using the GT Estate Wordprocessor you might want to go to the SHORT INSTRUCTIONS on page 24. These will summarize the the GT Estate Wordprocessor commands.

If you are not familiar with word processing and would like more explanation, continue reading, and we will introduce you the DETAILED INSTRUCTIONS for the GT Estate Wordprocessor.

Familiarize yourself with the keyboard before starting. Carefully note the position of the following special function keys.

RETURN	right side
DEL/INST	upper right
up-arrow	right side, above RETURN

CRSR left/right-arrow, lower right, below RETURN
 CRSR up/down-arrow

F1, F3, F5, F7 the four keys on the far right

SHIFT LOCK left side, above SHIFT LOCK

CTRL upper left side, above SHIFT LOCK

left-arrow upper left corner

In this manual the sequence of keys necessary to add letters, delete letters, move paragraphs, etc. will be written so pressing the keys in that order will accomplish the given purpose. Pay close attention to the symbols between each key (i.e. + or -).

For example:

F1 + F1 means press the F1 key twice

F1 + RETURN means press the F1 key, then press RETURN

CTRL-L means press the CTRL key first, and at same time press the L key

CTRL-Z + CTRL-Z means press the CTRL key and the Z key at the same time, then repeat (CTRL-Z twice)

In the Detailed Instructions you will be asked to enter certain words or phrases exactly as they are seen. Just look for quotation marks. You need to follow carefully any instruction between those quotation marks.

For example, if you see "Type pastrami", then type the word "pastrami" (the underline is only to highlight the word). Or if you see "press CTRL-P", then press RETURN", press the CTRL key and the P key at the same time, then press the RETURN key.

Before starting, make a back-up copy of the GT Estate Wordprocessor and put the original disk in a safe place. The GT Estate Wordprocessor is not copy-protected so consult Appendix B to make a back-up copy.

DETAILED INSTRUCTIONS

Turn your TV or monitor on, then the disk drive, followed by the computer. Start the program by removing the GT Estate Wordprocessor disk from its protective envelope. Insert the disk into the disk drive with the label up and towards you. Close the disk drive door. "Type LOAD"GTESTATE",8 then press RETURN". After approximately 30 seconds the screen will display:

**** COMMODORE 64 BASIC V2 ****

64K RAM SYSTEM 38911 BASIC BYTES FREE

READY
 LOAD"GTESTATE",8

SEARCHING FOR GTESTATE
 LOADING
 READY

"Type RUN, then press RETURN". The screen will display the name of the program, logo, and the Main Menu.

(program name and the logo would be here)

(E)=EDIT CURRENT FILE
 (I)=INITIALIZE NEW FILE
 (L)=LOAD FILE FROM DISK
 (S)=SAVE CURRENT FILE TO DISK
 (D)=VIEW DISK DIRECTORY
 (F)=FORMAT NEW DISK
 (P)=PRINT CURRENT FILE
 (Q)=QUIT

MAIN MENU

The Main Menu could be considered the "home base" of the program. You will need to return to the Main Menu to use many of the features of the GT Estate Wordprocessor.

The following are brief descriptions of the Main Menu items, with page numbers for more information.

Before we go any further, you need to know that a "file" is anything that can be typed with the GT Estate Wordprocessor and will be stored in the computer's memory or on the disk. This could include a list of addresses, a letter to your rich aunt, a book report on Truman Capote, or a monograph of courtship rituals of albino limpets.

(E)=EDIT CURRENT FILE - This will enable you to work on a file that has been transferred (or loaded) into the computer from the disk. Remember, a "file" is any type of text such as a letter, book report, paragraph, etc. (page 10).

(I)=INITIALIZE NEW FILE - This choice allows you to start a new file and eliminates any old file in the computer's memory only. It doesn't eliminate it from the disk (page 8).

(L)=LOAD FILE FROM DISK - The computer will make an exact copy of a file stored on the disk and transfer it to the computer for editing or printing. DISK-----COMPUTER (page 10)

(S)=SAVE CURRENT FILE TO DISK - Enables you to transfer an exact copy of the file you are editing to the disk for storage. COMPUTER-----DISK (page 15).

(D)=VIEW DISK DIRECTORY - Displays a list of all files currently stored on the disk (page 16).

(F)=FORMAT NEW DISK - Prepares a blank disk to accept data (page 28).

(P)=PRINT CURRENT FILE - Displays the Printer Menu for printing the file in the computer's memory (page 29).

(Q)=QUIT - This will enable you to stop the GT Estate Wordprocessor program and return to BASIC (page 32).

STARTING A NEW FILE

(I)

To select any item on the Main Menu, just choose the appropriate letter from the menu, press that key, and the letter will replace the black square, or cursor, just after the phrase SELECTION: . The cursor acts as the "pencil and eraser" for the GT Estate Wordprocessor.

With the Main Menu on the screen, "press I" to start or Initialize a new file. Initializing a file will erase any text in the computer's memory and let you start "writing" on a clean slate.

After pressing I, the following phrase will appear.

PRESS Y TO CONFIRM:

"Press Y" to tell the computer you do wish to start a new file. Although this might seem unnecessary, remember when you start a new file, the computer erases any file already in the computer to make room for the new one. The computer is just double-checking with you to be sure that's what you want to do.

The screen will be cleared of all text except for the cursor in the upper left corner and the following phrase at the bottom:

----PRESS CTRL-L FOR HELP----

The command CTRL-L will let you view the Help Screens. These will be discussed later.

*NOTE

If you have accidentally pressed the keys E, D, or P and have left the Main Menu you will have to return. Use the chart below to go back to the Main Menu.

KEY	TO RETURN TO THE MAIN MENU PRESS:
E	Left-Arrow (upper left side of keyboard)
D	SPACEBAR
P	E + RETURN

If you happen to press L, F, S, or Q and remain at the Main Menu, press RETURN to start over, then press I.

ENTERING TEXT & CORRECTING MISTAKES

(SHIFT, SHIFT LOCK, DEL/INST, Left-Arrow)

You are now ready to enter and edit text. To enter characters just type in the letters. "Type in the word marmalade." If you make a mistake you can back the cursor over the mistake (also called deleting a character) by pressing the DEL/INST key, then type the correct letter. One of the many convenient features of the GT Estate Wordprocessor is immediately allowing you to see the results of your editing.

Capitalized letters and upper symbols (i.e., \$, ?) are created by using the SHIFT or SHIFT LOCK key.

"Type a couple of sentences onto the screen without pressing RETURN". Notice the words wrap around to the left side of the screen. That is normal for this type of screen. Don't worry, the printed copy will not look like that.

Leave your file and return to the Main Menu. "Press the left-arrow key". This will return you to the Main Menu anytime you are entering characters or editing material.

LISTING AND LOADING FILES

(L, D, E)

For the remainder of this section of the manual you will be working with a file we have placed on the the GT Estate Wordprocessor diskette. However, since you don't know the name of the file, it's going to be hard to tell the computer which file you want to use.

From the Main Menu you can view all the names of the files on a diskette. This is called a directory. "Press D" to view this directory. The screen will be cleared, and the names of all files on the the GT Estate Wordprocessor diskette will appear on the screen.

0	DATA DISK	00
48	ESTATE	PRG
1	P-SETUP	PRG
9	LETTER	PRG
606 BLOCKS FREE		

The file called "letter" is the file you will need to load into the computer. The other files listed can't be edited or printed with the GT Estate Wordprocessor. The

number indicates how large the file is. The total amount of memory available on the diskette is shown as XXX BLOCKS FREE. As you put more files on the disk, the amount of space available will get smaller.

"Press any key" to go back to the Main Menu (or if the number of files on the disk exceeds one screen, pressing any key will continue to display the files on the next screen).

"Press L" and the computer will ask you the name of the file you wish to load.

ENTER FILE NAME:

"Type in the word letter" and notify the computer that you have finished typing (by pressing RETURN).

The computer will transfer a copy of the file "letter" from the disk into the computer's memory.

Loading the file will erase the text you had entered before. The disk drive's red "Busy" light will go on as the computer transfers a copy of the file "letter" in to the memory of the computer for editing.

When the computer can't find a file, it will display:

62, FILE NOT FOUND, 00, 00

If this happens, double check to see if you have spelled the file name as it's listed in the directory (D).

If for some reason the file is lost while editing (Yes, those things happen, even to computers) don't worry, because the disk still has a copy. True, the file won't have any of the editing you have done, but at least you won't have to start over.

When the file is loaded, "press E" and the beginning of the file (shown below) will be displayed on the screen for editing:

!tb5,40
!lm5
!rm70
!tm20
!bmt

Alfred T. Littlebottom
Minnebunns Corporation
1500 Tinnehiney Highway
Port Arthur, UT 84001

Jessica R. Palmer
A.N.T. Amusements, Inc.
Great Sting, NJ 10966

etc., etc.....

For now, ignore the strange words and symbols at the beginning of the letter, they will be explained later.

CURSOR MOVEMENT

(CRSR-up/down-arrow, CRSR-left/right-arrow, F5, F7, CTRL-E, CTRL-B)

Movement of the cursor is critical to all word processing programs. This allows you to edit in the middle of paragraphs or words, and to move text from one point to another.

CURSOR MOVEMENT BY INDIVIDUAL POSITIONS

(CRSR-left/right-arrow, CRSR-up/down-arrow)

The cursor is moved around the screen (without entering characters) by the two CRSR keys in the lower right corner.

"Press CRSR-left/right-arrow + CRSR-left/right-arrow" and the cursor will move two positions to the right. To move the cursor to the left, press SHIFT-CRSR-left/right-arrow (Remember, press SHIFT and at the same time press the CRSR-left/right-arrow key). "Press CRSR-up/down-arrow" four times and the cursor will move down the screen. "Pressing SHIFT-CRSR-up/down-arrow" moves the cursor up the screen. Practice with the CRSR keys to become familiar with how they move the cursor.

LONG DISTANCE CURSOR MOVEMENT

(CTRL-B, CTRL-E, F5, F7)

If you want to skip up or down several pages, moving the cursor by individual lines or characters can be tedious. The GT Estate Wordprocessor has CTRL commands which will quickly move the cursor longer distances.

The CTRL-B and CTRL-E commands will move the cursor to the Beginning of the file and End of the file.

"Press CTRL-E" and move the cursor to the end of the file. This command can also be used to move the end of the file to the middle of the screen for easier viewing of text material you might be adding at the end.

"Pressing CTRL-B" and move the cursor to the beginning of the file.

The cursor can also be moved smaller distances using the F5 and F7 keys. "Press F7", and the cursor will move down half a screen (12 lines); "Press F5", and the cursor will move up half a screen.

The advantages of all these cursor movement commands become important when you are working on a long document such as a book report or research paper.

DELETING AND RETRIEVING TEXT

(DEL/INST, F1, F2, F3, F4)

You already know the DEL/INST key is used to delete one character at a time. This key will store each character it deletes in an electronic bin inside the computer called the buffer. You can store up to 256 characters in the order that they are deleted (spaces and returns each count as one character) in the buffer.

Once the buffer has been filled, any additional characters will push out the first deletions you put into the buffer. You can think of the buffer as a long tube. By deleting characters you place each character into one end of the tube. Once the tube is full, any more characters you delete will push the first ones out the other end.

You can empty or retrieve the full contents of the buffer by SHIFT-DEL/INST. The first characters that appear will be the last characters you had deleted. This is like tipping the tube so the characters roll out the same end into which you put

them. Once you have "emptied" the entire buffer, the sequence of characters will start over again from your last deletions.

The DEL/INST key can be useful in moving pieces of text less than 256 characters in length. Simply delete that section of text, move the cursor to the place you want to insert that piece of text, then press SHIFT-DEL/INST until the material you want appears. Go to the end of the file (CTRL-E) and try moving some words around using the right and left arrow keys. Try to move it back to its original place before going any further.

DELETING AND RETRIEVING WORDS AND PARAGRAPHS

(F1, F2, F3, F4)

Sometimes deleting characters one at a time with the DEL/INST key is too slow, especially if you need to delete a lot of text.

The F1 key delete will delete an entire word, including the space in front. For example, "move the cursor to the end of the first paragraph".

...in payment of a sum totaling \$9400.00.

"Press F1 + F1" and watch the last two words disappear in a flash.

By pressing F2 (or in other words SHIFT-F1) you can retrieve words from the buffer instantly. "Press F2 + F2" and retrieve the two words you had deleted.

The F3 key will delete up to 256 characters (full buffer) within a paragraph, or back to the last RETURN.

"Press F3" and delete the remainder of the paragraph, including the RETURN before it. The words of the paragraph will disappear instantly.

You can also retrieve paragraphs (or the entire buffer) by pressing F4 (SHIFT-F3). "Press F4" and retrieve the rest of that paragraph you had deleted.

SPEEDING CURSOR MOVEMENT

(CTRL Y, CTRL D, CTRL F)

"Move the cursor until the second address appears in the middle of the screen" (Good time to try the F5 key or CTRL B command).

SECOND ADDRESS

Jessica R. Palmer
A.N.T. Amusements, Inc.
One Chrysalis Plaza
Great Sting, NJ 10966

We'll use the address to demonstrate the CTRL Y and CTRL R commands.

SAVING PIECES OF TEXT

(CTRL Y)

Move the cursor to the end of the second address, then press CTRL-Y. An inverse (white letter on black) Y will appear to the left of the cursor and the following phrase will appear at the bottom of the screen.

-----MOVE CURSOR BACK BEFORE Y, PRESS CTRL Y-----

Now "move the cursor to just before the second address, and press CTRL-Y again". The text will move upwards, and you will see the phrase:

ENTER FILE NAME:

Now "Type in the file name ADDRESS, then press RETURN." You can use file names up to 15 characters long. The disk drive's red busy light will go on and a few seconds later the screen will go blank, and the phrase "00, OK, 00, 00" will appear for a couple of seconds.

This indicates the file was saved. The text material will be displayed again.

The address has now been saved under the file name ADDRESS.

Notice that CTRL Y doesn't delete anything you saved. It just makes a copy of the

text material between the two Y's and transfers it to the disk. You can save any amount of text up to the entire file with the CTRL Y command.

VIEWING THE DIRECTORY FROM TEXT EDITING

(CTRL D)

To check whether the file named ADDRESS is saved "press CTRL-D". This acts just like choice D from the Main Menu. The file ADDRESS will be listed beneath the other files. Saving the address would be useful for labeling the envelope.

As indicated at the bottom of the screen:

PRESS ANY KEY TO CONTINUE

"Press any key" and you will return to the text material at the point you left.

The file, ADDRESS, is now loaded into the computer's memory just like any other file you create using the GT Estate Wordprocessor. And like any other file, you can insert it anywhere within the text you are editing.

INSERTING A FILE INTO THE TEXT

(CTRL R)

"Press CTRL-E " and go to the end of the file. Now press RETURN + RETURN to give you some room, then "press CTRL-R". The text will move up, and you will see the following phrase at the bottom of the screen:

ENTER FILE NAME:

"Type in ADDRESS, and press RETURN ". The file ADDRESS will now be inserted after the cursor.

These two commands (CTRL Y and CTRL R) are extremely useful for moving large sections of text around, or for piecing together large documents.

REMAINING MEMORY

(CTRL F)

Be aware that the computer has a limited amount of memory for text editing, but the disk can easily handle many times that amount.

Keeping track of the remaining memory is simple. "Press CTRL-F", the screen will clear, and the following phrase will briefly appear at the top of the screen.

BYTES REMAINING: XXXXX

One character equals one number or byte (X). The REMAINING MEMORY is nearly equal to the amount of characters you can enter before running out of space. Normally, you can work with about 18 printed pages of text at a time (depending on spacing, tables, etc.). The disk will hold about 4 1/2 times as many pages.

The GT Estate Wordprocessor program will notify you if space in the memory is low (less than 256 characters). It can't warn you if the file you are going to insert will exceed the available memory. If you are combining files, start by loading the largest file first, then the smaller files. If you do happen to overload the memory, you will only affect the copy of the file in memory, not the file stored on the disk.

SEARCHING AND REPLACING WORDS

(CTRL G, CTRL S)

You might find it necessary to quickly locate certain words or phrases within your file. Using the CTRL G AND CTRL S commands, you can search for words or phrases anywhere in the file (up to 31 numbers and spaces).

For example, one of our manual writers thought the GT Estate Wordprocessor was spelled G.T.'s State Birdprocessor. Instead of tediously searching the entire manual for each misspelled name, his successor used the CTRL S command to find and replace the misspellings.

GLOBAL SEARCH

(CTRL G)

"Press CTRL-B " and move the cursor to the beginning of the file. Then "Press CTRL-G" (Global search). The text will move up, and the phrase:

SEARCH FOR:

will appear with the cursor right beneath it. You can type in any word, words or parts of words, and the computer will automatically look for that sequence of characters. You can delete characters in your search word using the right-arrow key.

The search will start from the present location of the cursor, and proceed to the end of the file. If the cursor is after what you are looking for, it can't find it. We recommend you move the cursor to the start of the file (CTRL-B) if you are unsure where the word is located.

The first time it finds the set of characters, that section of the text will appear on the screen, and the blank cursor will appear before it.

"Type in the word on, then press RETURN." The cursor will appear at the word "Corporation" and the following phrase will appear at the bottom of the screen:

----STOP SEARCH (Y/N)?----

The computer is asking you if you want to stop searching for that set of characters. Pressing Y will stop the search and leave the cursor at that point, pressing N moves the cursor to the next occurrence of the word. If the computer can't find the word, the cursor will go to the end of the file.

Notice that the cursor appeared in the middle of "Corporation" rather than before the word "on". Remember, the computer is only looking for that particular sequence of characters, it doesn't know you are only looking for the word "on". To prevent this, enter a space before and after the word.

"Press Y", then go back to the beginning (CTRL-B) of the file. "Press CTRL-G again". Now "type on", but this time place a space before and after the word." Now the cursor will appear next to the word "on" instead of in "Corporation". "Press N a few times to see how the CTRL-G command can find words."

SEARCH AND REPLACE

(CTRL-S)

The other searching method uses the CTRL-S (Search and Replace) command. This would allow you to either automatically replace all occurrences of a word with another one (remember G.T.'s State Birdprocessor), or search for and replace the old word manually in case you don't want to replace every occurrence of the old word with the new one.

Like the CTRL-G command, this works from the cursor to the end of the file. You might need to move the cursor back to the beginning of the file to find all of the occurrences of the word. When the word is no longer present in the text, the cursor will return to the point in the text you had left to use the CTRL-S command.

If the cursor is not at the beginning of the file, "press CTRL-E" and move the cursor to the beginning of the file. "Now press CTRL-S" and the following phrases will appear at the bottom of the screen:

ENTER: /OLD/NEW

ENTER:

The word to be replaced (OLD) must be preceded and followed by the same character. Although a slash mark (/) is shown, any character will work.

Like CTRL-G, the CTRL-S command will search for that specific sequence of characters. Therefore, enter a space before and after the word to find individual words only. "Type in / girb / frump and press RETURN." The following choices will appear along the bottom of the screen:

PRESS A FOR AUTO REPLACE; M FOR MANUAL

"Press A", and the computer will automatically replace the OLD word with the NEW word, starting from the point in the text from where you commenced the search, through the end of the text.

Of course, that leaves the letter reading a bit oddly. "Press CTRL-S, type / frump / of " (place spaces before and after each word), and choose the Manual mode of replacement. "Press M" and the cursor will move to the first occurrence of the word. The following phrase will appear along the bottom of the screen:

----R TO REPLACE; S TO SKIP; X TO EXIT----

Choosing R will replace the OLD word with the NEW one, S will skip to the next occurrence of the word, and X will stop the search and return to text entry and editing. "Replace "frump" with "of". When it has finished searching, you will return to the place in the text where you had started the search.

Using this same feature, you can shorten your typing time by substituting an abbreviation for any word or phrase that you will be using many times in your file. As an example, you could type "b*" for the phrase "incredibly boring" in a long report on political speeches. When you are finished writing the report, simply use the Auto Replace feature of CTRL-S to replace "b*" with "incredibly boring".

If for some reason you wish to leave the Search and Replace feature before searching, simply delete (use DEL/INST) the OLD and NEW words, then press RETURN.

HELP SCREENS

(CTRL-L)

The GT Estate Wordprocessor places into the computer's memory a set of 4 screens that act as an aid in remembering the various commands used in the GT Estate Wordprocessor. The Help Screens can be seen while you are entering or editing material. You no longer need to hunt wildly for those little pieces of paper with the command summaries on them.

"Press CTRL-L" and the text on the screen will be replaced by the first Help Screen. "Use the SPACEBAR as indicated at the bottom of the screen to view the other three Help Screens." To return to your material, "press X" and you will return to your place in the text.

INVISIBLE COMMANDS

(Underlining, Tabbing, and Printing Commands)

These command characters will be seen on the screen, but will not appear on the printed copy. Each of these commands, except underlining, must start with an exclamation mark (!), and must be on a line by itself along the left edge of the screen. In other words, each command must be preceded and followed by a RETURN. The only exception is when the command is the first entry in the file, in which case it needs no RETURN before it.

UNDERLINING

(CTRL-U)

"Move the cursor to the end of the last sentence of the first paragraph, between the last zero and the period (\$9400.00)."

"Press CTRL-U in the upper left corner", and a checkered flag symbol will appear. Now "move the cursor to just before the "\$9400.00", and press the left-arrow key". Another flag will appear.

This will tell the printer that the characters between the two flags must be underlined. The "\$9400.00" will now be underlined in the printed copy.

NOTE: Some printers, such as the VIC 1525, cannot underline. If you have such a printer the underline flag might or might not affect your printer. Try an example to see what the symbol will do.

It is important to remember to have an even number of flags for underlining (two per underline). If only an odd number of flags are present, then somewhere in the text a word has only one flag. The printer will start underlining at the first flag, and continue until it sees a second flag or a RETURN.

Each word to be underlined should have its own set of flags with a space in between. That way only the words and not the spaces in between will be underlined.

SETTING TABS

(!tbW,X,Y)

Most pages are about 80 spaces across, but with a left and right margin, only about 66 spaces are available for use. This means you are really working with 66 spaces across the page, and not the 40 spaces seen on the screen. Plan where you are going to set tabs based on the printed lines, not the lines you see on the screen.

The tab setting command is !tbW,X,Y with the tabs set W, X, and Y spaces from the left margin. You can enter up to 32 separate tabs per printed line.

"Move the cursor to the beginning of the file (CTRL-B)" and notice the !tb5,20,42 command at the top.

For the letter, the first tab is set five spaces, the second tab is set 20 spaces, and the third tab is set 42 spaces from the left margin.

TABBING

(Up-Arrow)

To reach the first tab on the line, press the up arrow key on the right side of the keyboard once and one up-arrow will appear. The text on that printed line will now start at the first tab. Each up-arrow you add in one printed line will move the printing one tab set over.

Notice the first address in the letter. Each line of the address has three up-arrows, this means the printing of each line of the address will start at the third tab set, 42 spaces from the left margin.

Tabbing works only in a forward direction. If you have entered enough characters to have passed the first tab set, adding an up arrow will move the printing to the next tab, not back to the one you passed.

Tabs are most useful for constructing tables. For help in designing them, compare the table as displayed on the screen (at the end of the file) with the finished product in Appendix D.

PRINTING COMMANDS

As with the tab setting command, the following printing commands must start with an exclamation point and be preceded and followed by a RETURN, unless the command is the first thing entered on a file.

NOTE: These printing commands will override the default values set on the Printer Menu (see p. 29)

SETTING THE MARGINS

(!tmW, !lmX, !rmY, !bmZ)

Four Commands (!tmW, !lmX, !rmY and !bmZ) will set the edges of the text the desired distance from the edge of the paper.

The top margin command, !tmW, will tell the printer to move the paper up W lines then start printing. This margin command starts on the next printed page. If you need to modify the top margin on the first page, change the top margin value on the Printer Menu (see p. 29).

The command, !lmX, will set the left margin of the text X spaces from the left edge of the paper or from left end of travel of the printing head. In this paragraph we placed the command !lm30 just above, and the command !lm7 right below.

The command, !rmY, will set the right margin of the text Y spaces from the left edge of the paper. In this paragraph we placed the command !rm42 just above, and the command !rm72 right below.

The last margin command, !bmZ, will set the bottom margin Z spaces from the bottom edge of the paper. Actually, the printer will first look to see how many lines long the page is, and will stop printing on that page Z lines from the bottom. The length of the page is set on the Printer Menu (see p. 29).

Notice the four printing commands at the top of the letter. Keep in mind that the top margin command starts on the next page, so the top margin of the second page of the letter will be 20. The top margin of the first page will be the value set on the Printer Menu. The left margin is set 7 spaces from the left edge, the right margin is set 72 spaces from the left edge, and the bottom margin is set 6 spaces from the end of the page. These commands can be changed anywhere within the text to suit your needs.

CENTERING TEXT

(!cj, !lj)

Titles and section headings in this manual are just two examples of text material that would need to be centered on a page.

"Move the cursor to the title of the table".

ORDER FOR A.N.T. AMUSEMENTS, INC.

Notice the two commands: !cj and !lj. The first command, !cj (center justify), will tell the printer that the material to follow must be centered between the left and right margins. The margins can be set using the printing commands mentioned above, or on the Printer Menu, or both.

The second command, !lj (left justify), will tell the printer to stop centering the text and instead to start printing, as usual, against the left margin. You will need to use this command after using the !cj command or all of the rest of the text will be centered.

SMOOTHING THE RIGHT MARGIN

(!fj, !lj)

One way to improve the appearance of some material is to use the !fj (fill justify) command. "Move the cursor to the second paragraph starting with:

According to our attorneys, you are the . . .

Notice the !fj command just above the paragraph. This command will add spaces between the words of a printed line so the right margin is as even as the left margin. Note the spaces that have been added between the words in this paragraph to smooth the right margin. Use the !lj command to stop the effects of the fill justify command.

NEW PAGE

(!np)

"Move the cursor until the closing appears on the screen".

```
!sp3      Sincerely,  
          A.J. Littlebottom  
!sp0  
!np  
etc., etc. . . .
```

Sometimes parts of the text should have their own separate page, or should start on a new page. The !np (new page) command will start printing the text that follows on a new page.

If the type of paper you are using is single sheet, the printer will read this command, stop printing and wait until you have inserted another sheet to resume printing.

If the type of paper you are using is a continuous form, then the printer will read the !np command, stop printing on that page, move the paper to the top margin of the next page, and resume printing. (See p. 29 for printing procedure).

CONDITIONAL PAGING

(!cp)

When printing text with titles or chapter headings, you probably won't want the title at the bottom of a page with the rest of the text on the next page.

When the printer sees a !cp (conditional paging) command, it will look to see how many lines are left before the bottom margin. If there are less than six lines, the printer will stop printing on that page and resume printing on the next. If there are six or more lines until the margin, the printer will ignore the conditional paging command and continue.

EXTRA SPACING BETWEEN LINES

(!spX)

You will occasionally want to place more than the usual spacing between lines.

Go back to the letter. Notice the !sp3 (spacing) command before the closing. This means the text after this command will be printed out with quadruple (4) spacing. Rarely would you want more than a few lines to be that widely spaced, so to return to normal (single) spacing, use the !sp0 command as we did after Mr. Littlebottom's name. Normal (single) spacing is !sp0, double spacing is !sp1, triple spacing is !sp2, etc.

PAGE HEADINGS

(!hd****up arrow)

Long reports or papers sometimes require the use of page headings. The command !hd****up-arrow will place a heading at the top margin and centered between the left and right margins. The asterisks (*) indicate where the text of the heading is to be put. You can use up to 61 characters including RETURNS. All lines will be centered between the left and right margins. To set off page heading from the rest of the text, include a RETURN before the symbol in the command.

The !hd***up-arrow command should be placed one page before you wish to start the page headings. As an example, "move the cursor back to the beginning of the file (CTRL-B)" and notice the following phrase:

!hdThis is the second page
up-arrow

The printer will note it on the first page, and then place the phrase "This is the second page" as a page heading on the second page.

Do not put a space between the text of the heading and the !hd***up-arrow command. Use the up-arrow key to create the up-arrow symbol at the end of the command and do not type the word "up-arrow". Placing a RETURN before the up-arrow symbol as we did in the letter will separate the page heading one line from the remainder of the text on the page. Two RETURNS will separate the heading two lines from the remainder of the text, etc.

INDENTING LINES

(!inY)

When entering material such as references in a bibliography, or certain styles of footnotes, the lines of text after the first printed line are indented. As an example, this and the following paragraphs in this section were printed using an !in5 command.

The !inY command will enable you to indent those lines Y spaces from the left margin, as you see in these paragraphs.

If an !in5 command is placed in the text the printed lines after the first line will be indented five spaces from the left margin, until the printer sees a RETURN. After the RETURN, the next line will be printed against the left margin. Then the next line would again start five spaces from the left margin until another RETURN is entered. The !in0 command will cancel the indenting.

SPECIAL PRINTER COMMANDS

(!ptJ, K, L, CTRL-P)

Some printers allow you to use printing commands unique to that printer. For instance, some printers allow for boldface or compressed printing. Your printer manual will have the listing of the decimal number codes that allow special commands.

Locate the part of the text where you wish to use the special commands, and insert the !ptJ, K, L command (remember you have to place a RETURN before and after all "!" printer commands). Simply replace the letters J, K, L with the decimal numbers. This will begin the special printer features at the start of a line.

If you only want to use your special printer features on individual words or parts of paragraphs, you need to use the CTRL-P command. In this case it is necessary to precede each DECIMAL code number with a check-mark symbol, and follow the decimal number with any non-numerical character. The character following the decimal number will not be printed. We recommend using a space to help set apart the decimal code from the rest of the text. The check-mark symbol is made by pressing CTRL-P.

The check-mark symbol (CTRL-P) should be placed before and after each word or section of text you wish to have affected by this particular printer function.

The effect of sending a decimal code or codes to the printer will continue until another decimal code is sent to cancel it. For example, with some printers, entering the underlining code 27 88 will result in the printer automatically underlining everything until another decimal code 27 89 for "cancel underline" is sent.

NOTE: Because different printers generally use different codes for their features, some experimentation with your printer will probably be necessary.

SAVING THE FILE

(S, E)

We are now going to save the edited letter onto the diskette. "Press the left-arrow key in the upper left corner and return to the Main Menu, then press S". The phrase below will appear:

ENTER FILE NAME

"Type the file name letter 2, then press RETURN". You can use file numbers up to 15 characters in length. You won't be able to save another file under the name letter unless you precede the file name with #0:. For example, if you wanted to save your file under letter then you would type #0:letter as the file name. The new file would then replace the old file already on the disk.

The disk drive's busy light will go on and after a few seconds the drive will stop. "Check to see if the file was saved using choice D, as discussed before, then return to the Main Menu (see Page 10)."

The choice S only saves a copy of the file and does not erase the file from the computer's memory. "Press E", and you'll see the file safe and sound. The same file will be displayed for more editing until another file is loaded or initialized, or another program is used.

FORMATTING A NEW DISK

(F)

As the number of files you create grows, you will want to put your text onto other disks. Every new disk has to be prepared for storing data. This is called formatting (some call it initializing) the disk. To format a new disk with the GT Estate Wordprocessor, be sure the Main Menu is on the screen. Remove the GT Estate Wordprocessor diskette from the drive, and insert the new disk into the drive. Press F and the phrase below will appear at the bottom of the screen:

PRESS Y TO CONFIRM:

The program is double checking with you to be sure you want to format the disk for accepting data. WARNING!! DO NOT FORMAT A DISK THAT ALREADY HAS DATA ON IT. YOU WILL LOSE ALL THE DATA.

Press Y and the disk drive will whirr and hum as it prepares the disk for accepting data. The screen will be blank during formatting. When the formatting is done, the Main Menu will be displayed.

PRINTING

"Go back to the Main Menu (left arrow key), then press P", and after a brief delay, the Printer Menu will appear.

The values displayed are preset, or default, values for printing.

Preset Printing Values

The following section is the English translation of the Printing Menu. Remember, the numbers on the Printer Menu will be overridden if you have printing commands in your text.

The printed copy will have the left margin set 7 spaces from the left edge of the paper, the right margin 72 spaces from the left edge of the paper, the top margin 6 lines from the top edge of the paper, and the bottom margin 6 lines before you reach the bottom edge of the paper as indicated by your page length.

The preset page length is 66 lines, which is the standard length of an 8 1/2" by 11" sheet of paper.

The first page # is 0, which means the pages will not be numbered. To number the pages enter a number other than 0, and the page numbering will start with that number, and increase by one with each page. The page number will be centered between the left and right margin, 1/2" (3 lines) above the bottom of the page.

The spaces between lines is 0 which is single (normal) spacing. Entering a 1 will double space, 2 will triple space, etc.

The type of paper to be used is single sheet, not continuous form. The printer will wait for the next sheet of paper before continuing to print. If you change the value to N (continuous form) the printer will stop printing at the bottom margin, move the paper to the top margin of the next page, then start printing again.

The indentation of the lines is 0 spaces from the left margin or no indentation. Changing this value will start the indenting on the second line after the start of printing, just like the !inY printing command.

The device number is preset to 04. Using the numbers 04 or 05 means the printer is connected to the serial I/O port. If your printer is connected to the disk drive, the printer is connected to the serial I/O port. Consult your printer manual to determine what device number to use. See Appendix A for more information.

The bit 8 value is set at 0. Consult your printer manual for the value to use.

After changing any of the preset values, select the appropriate item from the selection menu at the bottom.

Saving Changed Printer Menu Values

(S)

The choice S can be used to save any of the values you have changed on the Printer Menu as a file called P-SETUP.

If your device number is different, your margins unique, or the paper you use is always continuous form, you don't want to change the preset values every time you want to print a file. Just press S before you start printing and the computer will save those changed values as the new preset or default values.

You can change the Printer Menu values and save different P-SETUP files on different data disks.

The short delay in going from the Main Menu to the Printer Menu is due to the GT Estate Wordprocessor program looking for a file called P-SETUP. This is the file which contains the values for the Printer Menu. We recommend saving the P-SETUP file onto each data disk you use.

When you are ready to save P-SETUP onto a data disk, simply insert the formatted data disk (see page 28). Press S and the P-SETUP file will be saved onto the data disk.

This will make it easy to swap data disks around without worrying if the GT Estate Wordprocessor diskette is in the drive.

Printing a File

(P)

READ THROUGH THE NEXT TWO SECTIONS BEFORE TRYING TO PRINT YOUR FILE

Turn your printer on and be sure it's on line. Insert and align the paper, then "press P then press RETURN" to start the printing. The screen will be cleared and the following phrases will appear:

INSERT NEW PAGE, PRESS P TO PRINT;
PRESS ANY OTHER KEY TO SKIP THIS PAGE

PAGE #0

"Press P again" and the printing will start, with the following phrase at the bottom of the screen.

PRESS Left-Arrow TO STOP PRINTING
PRESS Z TO PAUSE

At the end of the first page the printer will stop and ask you to insert another sheet of paper. Do this, then "press P" again. Your finished letter should look like the letter in Appendix D.

STOPPING PRINTING

(Z, Left-Arrow)

If some problem develops with printing, you can press Z to pause. Then press any key to start printing where you had left off.

Pressing the Left-Arrow will stop printing and return you to the Printer Menu.

SKIPPING PAGES

In some cases you might not wish to print the entire file. The GT Estate Wordprocessor can skip pages (only if you are using single sheets of paper, in other words Y on the Printer Menu) until you reach the page you wish to print.

The file "letter" has two pages. Start to print the file again by "pressing P and

then pressing RETURN". "Press any other key except P" and you will see the phrase below appear for a few seconds, then disappear:

PRESS Left-Arrow TO STOP PRINTING
PRESS Z TO PAUSE

That is the first page of the file. If you had the page number value from the Printer Menu set on any number greater than 0 the page number would change. To skip to the page you wish to print, just watch the number next to the PAGE NUMBER on the Printer Menu. The number indicates the page to be printed. You can do this any time in between printing pages. "Press the SPACEBAR again".

When the end of a file is reached, the disk drive busy light will go on, and the Printer Menu will be displayed again. If you are not numbering your pages, simply count the number of times you press the SPACEBAR.

END OF PRINTING

(E, Q)

When the printing is finished, the Printer Menu will appear on the screen. The disk drive is working because the GT Estate Wordprocessor is reloading the preset values from P-SETUP.

If you've finished printing, press E to go back to the editor.

STOPPING THE GT ESTATE WORDPROCESSOR

To stop the program it will be necessary to go to the Main Menu.

If you are editing or printing text material, press the left-arrow key to return to the Main or Printer Menu. If you are at the Printer Menu, press E then press RETURN to go to the Main Menu.

When you have displayed the Main Menu, press Q. The phrase below will be displayed at the bottom of the screen:

PRESS Y TO CONFIRM

Press Y if you are sure you want to leave the program. The file you are working on will be lost, so save it before you QUIT.

Pressing Q then Y will stop the program and return the computer to BASIC for entering or running other programs. Remove the disk and place it in the protective envelope.

By now you will have been exposed to all the features of the GT Estate Wordprocessor. The next step is to get some paper and experiment. Try writing a letter or paragraph, change words around, use some printing commands. You can't hurt your computer, so have fun and learn the best way to use the GT Estate Wordprocessor for your writing needs.

SHORT INSTRUCTIONS

If you are already familiar with word processing programs, read through these brief summaries, and try each one with text of your own choosing. Practice will familiarize you with the GT Estate Wordprocessor.

Insert the diskette and type LOAD "GTESTATE",8 then after READY appears type RUN. The Main Menu will be displayed. To stop the GT Estate Wordprocessor, return to the Main Menu and press Q.

MAIN MENU

(E) -- edit file currently in memory. The left-arrow key will return you to the Main Menu.

(I) -- start new file for editing; this will erase any file currently in memory.

(L) -- load a file from the disk; this will erase any file currently in memory.

(S) -- save the file currently in memory to disk. The file name can be up to 32 characters in length.

(D) -- allows you to view a list of the files (directory) on the diskette. CTRL-D will do the same thing from the edit or data entry modes.

(F) -- prepares or formats a diskette to receive data; this will erase everything on the disk. Formatting a disk with data already on it will destroy all the old data.

(P) -- print files. Loads and displays the Printer Menu.

(Q) -- will stop the GT Estate Wordprocessor program and return you to BASIC.

ENTERING TEXT

The GT Estate Wordprocessor allows you to use the keyboard like a typewriter. Simply type in the characters with the blank cursor. Use the SHIFT key to generate symbols and capitalized letters.

A series of capitalized letters can be created by using SHIFTLOCK. Use the SHIFT key to generate upper symbols.

DELETING AND RETRIEVING TEXT

(DEL/INST, F1, F2, F3, F4)

Single letters are deleted with the DEL/INST key. One word (with leading space) is deleted by F1, with words being a set of characters between two spaces. One paragraph (with leading RETURN) or 256 characters is deleted by F3.

Single characters are retrieved from the buffer by SHIFT-DEL/INST. One word (characters between two spaces) is retrieved by SHIFT-F1(F2). One paragraph (characters between RETURNS or up to 256 characters) is retrieved by SHIFT-F3(F4).

CURSOR MOVEMENT

(CRSR-left/right-arrow, CRSR-up/down-arrow, F5, F7, CTRL B, CTRL E)

To move the cursor without entering characters, use the CRSR keys. Pressing CRSR-left/right-arrow moves the cursor to the right, pressing SHIFT-CRSR-left/right-arrow moves it to the left. Pressing CRSR-up/down-arrow moves the cursor down one line and pressing SHIFT-CRSR-up/down-arrow moves it up one line.

To move the cursor up 1/2 screen (12 lines), press F5, to move the cursor down 1/2 screen, press F7.

The command CTRL-B will move the cursor to the beginning of the file and CTRL-E will move the cursor to the end of the file.

MOVING TEXT

(CTRL Y, CTRL R)

Small pieces of text (up to 256 characters) can be moved by deleting the material, moving the cursor to the desired spot, and retrieving the characters.

Larger pieces of text can be moved by saving the piece of text (CTRL-Y) to the disk and inserting it from the disk (CTRL-R).

SAVING TEXT - Move the cursor to the end of the portion you wish to save, press CTRL-Y, move cursor to beginning of the portion you wish to save, and press CTRL-Y again. Naming the new file (up to 15 characters) automatically stores it. You can save text to a file that already exists by putting @0: before the file name.

INSERTING PIECES OF TEXT - Move the cursor to point where you wish to insert text, then press CTRL-R, type appropriate file name. The file will be entered after the cursor.

SEARCHING FOR WORDS

(CTRL-G, CTRL-S)

Two commands (CTRL-G and CTRL-S) will allow you to find specific words or phrases. To find a word past the cursor location, press CTRL-G (Global search) and type the word or words (up to 31 characters) you want to find. The blank cursor will appear just before the first occurrence of the word. If you want to stop the search, press Y and the cursor will remain at that location. If you want to continue searching for the same word, press N and the cursor will appear at the next occurrence of the word. When the word cannot be found, the cursor will appear at the end of the file.

To find and replace words in a file, press CTRL-S (search and replace).

The word to be located, the OLD word, must be enclosed between the same characters. Any character will work. As an example (using the slash mark), / dog / cat will replace the OLD word 'dog' with the NEW word 'cat'.

The automatic replacement (A) will work on all occurrences of that sequence of letters even if it is contained within a word. Enter a space before and after the OLD word if complete words are to be changed.

Manual replacement (M) gives you the option to skip (S) any occurrence of that word, replace (R) the OLD word with the NEW word or exit (X) the search (Note: any letter other than R or X will skip the word).

REMAINING MEMORY

(CTRL F)

To determine the amount of memory left, press CTRL-F in the data entry or edit mode. The program will warn you when you have less than 256 characters left in memory. It cannot warn you if the file you are inserting or loading will exceed available memory. Therefore, insert smaller files into larger files.

HELP SCREENS

(CTRL-L)

To aid in remembering the various commands, the GT Estate Wordprocessor includes 4 Help Screens which can be viewed anytime during character entry or editing. Simply press CTRL-L, and the first Help Screen will appear. Use the SPACE BAR as indicated at the bottom of the screen to move to the next three Help Screens.

PRINTING COMMANDS

These commands are placed within the text and start with an exclamation point (!). They will not be visible in the printed copy.

The printing commands will override the preset values on the Printer Menu.

Each command must be preceded and followed by a RETURN. Commands entered at the beginning of a file do not have to be preceded by a RETURN.

The following commands will tell the printer to:

!cj -- center the text between the right and left margins.

!fj -- fill justify by adding spaces to each line so the lines of printed text are even on the right margin.

!lj -- start the text at the left margin as set by the !lmx command or by values set on the Printer Menu. Used after the !cj or !fj commands to return printing to normal margins.

!lmX -- set the left margin to x spaces from the left edge of the paper.

!rmY -- set the right margin to Y spaces from the left edge of the paper.

!tmW -- set the top margin of the text to W spaces. The printer will move the paper W lines up, then start printing. This command will start on the next printed page after the command.

!bmZ -- set the bottom margin Z spaces from the bottom of the paper. Length of page will be defined on the Printer Menu.

!spX -- place X spaces between lines. Single spacing is defined by !sp0, double spacing by !sp1, etc.

!inY -- indent lines by Y spaces from the left margin. The indentation will start with the second printed line after the insertion of the command. The text will return to the left margin after the next user-entered RETURN, then start indenting with the second printed line after that RETURN. The command will be effective until the indentation command !in0 is entered.

!np -- start the following text on a new page.

!op -- start the following text on a new page if less than six (6) lines are left before the bottom margin.

!hd***up-arrow -- place a page heading ***up-arrow (up to 61 characters including spaces and RETURNs) at the top margin and centered between the left and right margins. The heading will start on the page after the command.

!ptJ, K, L -- use special printing commands for blocks of text. Consult your printer manual for the decimal numbers to substitute for the letters in this printing command.

CTRL-P -- use special printer commands for words, sentences, phrases, etc. CTRL-P creates a check-mark symbol. Place this symbol before each decimal number related to the special printer feature, and place any non-numerical character after each decimal number. For example, on some printers, 27 88 starts underlining. Use other decimal code(s) to cancel the features.

TABBING

(!tbX,Y,Z,up-arrow)

Like the printing commands, tabs are set with an (!) command. The !tbW, X, Y command will set the tabs at W, X, or Y positions from the left margin.

To move the text to a tab, press the up-arrow key, and an arrow will appear indicating the following text will start at the first tab set. Two up-arrows indicate the text will start at the second tab, and so on. Each arrow within a line of text will move the printing of that text material to the next tab set. The number of tabs that can be set is 32.

UNDERLINING

(CTRL-U)

Text can be underlined with the CTRL-U command which creates a checkered-flag symbol. Place the underline symbol just before and just after the word(s) to be underlined.

NOTE: Some printers, such as the VIC 1525, cannot underline. The checkered flag symbol might or might not affect your printer. Experiment with a small file to find out.

PRINTER MENU

The Printer Menu can be seen by returning to the Main Menu, then pressing P. All preset default values can be changed by moving the cursor with the right and left arrow keys to the appropriate value, then entering the corrected value. All values set on the Printer Menu are subordinate to the print commands.

MARGINS -- The margins are preset for 8 1/2 by 11 paper.

PAGE LENGTH -- This is the length of the paper or of each sheet in a continuous form.

PAGE NUMBER -- The default value of 0 means page numbers will not be printed. Any other value means the numbering will start at that value. The page numbers will be centered between the right and left margins, 1/2 inch from the bottom of the page.

SPACING -- A value of 1 is single spacing between lines, a value of 2 is double spacing, a value of three is triple spacing, etc.

SINGLE (Y/N) -- Refers to the type of paper you are using in the printer (single sheet or continuous form). The default value (Y) will cause the printer to stop at the bottom margin and wait for the next sheet to be inserted. If the value is changed (N) the printing will stop at the bottom margin, the printer will automatically advance the paper to the top margin of the next page, then resume printing. For continuous printing, set the top and bottom margins to 0.

INDENTATION -- The indentation works like the !inY command described above.

DEVICE NUMBER -- This value needs to be changed only if your printer is located in a port other than the serial I/O port. Consult your printer manual and Appendix A.

BIT 8 (1/0) -- This value is related to the type of printer you will be using. To

determine how the value should be set, consult your printer manual.

PRINTING

Any changes to the default values can be saved, before printing, by pressing S from the selection menu.

To print the file, press Printer Menu item P, then press P again to start printing. By pressing Z you can pause during printing, or you can stop printing entirely by pressing the left-arrow key which will display the Printer Menu.

If you wish to skip certain pages of the file press any key except P to skip to the next page. The page number to be printed is located in the middle of the screen.

To return to the editor program from the Printer Menu, press E.

To leave the GT Estate Wordprocessor from the Main Menu, press Q, then confirm you wish to quit the program by pressing Y, and you will return to BASIC. If you don't want to quit, then press RETURN.

APPENDIX A

SPECIAL PRINTER INTERFACES

The GT Estate Wordprocessor provides the ability to interface to a variety of printers using the User Port on the back left side of the Commodore 64. As mentioned previously in this manual, if the Device Address on the Printer Menu is 4 or 5, the GT Estate Wordprocessor will assume that the printer is connected to the serial I/O port. Addresses other than 4 and 5 result in the GT Estate Wordprocessor sending the data to a printer containing a parallel interface via the User Port. To provide for maximum flexibility, the address bits define the sense (positive or negative true) of the data lines, the data strobe, and the data acknowledge (or busy), as follows:

Device # (bits)	7	6	5	4	3	2	1	0	
	0	0	0	0	0	1	0	X	Serial I/O, #4 or 5
	X	X	X	X	0	0	0	0	User Port Printer
	1	X	X	0	0	0	0	0	Data is Positive True
	X	1	X	0	0	0	0	0	Strobe is Positive True
	X	X	1	0	0	0	0	0	Ack. (busy) is Positive True
	X	X	X	X	1	0	0	0	For future use

For example, a printer which requires positive true data, a negative true strobe, and a positive true acknowledge would require a Device Address on the Printer Menu of A0.

A minor program modification is required for printers that don't automatically execute a line feed with each carriage return. The GT Estate Wordprocessor sends a null character, which can be changed to a line feed, with each carriage return. To change the null to a line feed, location 9561 (Decimal) must be changed to a value of 10. To do this, first load the GT Estate Wordprocessor. Rather than typing RUN, type POKE 9561, 10. Then save the program by typing SAVE "GTESTATE", 8. Henceforth, each carriage return will be accompanied with a line feed. To eliminate this extra line feed, reverse the process by poking the value of 0 in the same location and resaving the program.

The hardware connection to the user port requires connecting the printer signals to the User Port (using a standard 24 pin connector which can be obtained at many Commodore dealers) as follows:

Signal Name	Connector Pin	User Port Name
-----	-----	-----
Data Strobe	M	PA2
Data 1	C	PB0
Data 2	D	PB1
Data 3	E	PB2
Data 4	F	PB3
Data 5	H	PB4
Data 6	J	PB5
Data 7	K	PB6
Data 8	L	PB7
Acknlg	B	FLAG2
GND	A	GND
GND	N	GND

APPENDIX B

MAKING BACK UP COPIES

Before using any disk, it is recommended that you make a back up copy in case of damage. Unlike many programs, the GT Estate Wordprocessor is not copy protected, so it is easy to create your back up copy.

*****Part 1*****

Turn on your TV or monitor, then your disk drive, and then the computer. Once the starting picture has appeared, insert the GT Estate Wordprocessor diskette into the disk drive with the diskette label up and towards you. Close the disk drive door.

IF YOU DO NOT HAVE A DISK PREPARED (i.e., FORMATTED OR INITIALIZED) FOR ACCEPTING DATA, GO TO PART 2 BEFORE PROCEEDING FURTHER.

1. Type LOAD "GTESTATE", 8 then press the RETURN key.
2. After the red busy light goes out, remove the GT Estate Wordprocessor diskette, and insert a formatted back up diskette (see pg. 28). Close the disk drive door.
3. Type SAVE "GTESTATE", 8 then press RETURN.
4. After the red busy light goes out, remove the back up diskette and reinsert your GT Estate Wordprocessor diskette. Close the disk drive door.
5. Type the word RUN then press RETURN.
6. The Main Menu will be displayed. Press L, then type the word "letter", and press RETURN. Wait until the red busy light goes out.
7. Remove the GT Estate Wordprocessor diskette, and insert your back up diskette. Close the drive door.
8. Press S, then type the word "letter", and press RETURN.
9. After the red busy light goes out, remove the back up diskette and insert your GT Estate Wordprocessor diskette. Close the drive door.
10. Press P, and then the Printer Menu will be displayed. Remove the GT Estate Wordprocessor diskette, and insert your backup diskette.
11. Press S, then press RETURN. After about 5 seconds you will have a finished backup copy of the GT Estate Wordprocessor. Now place the original GT Estate Wordprocessor in a safe place.

*****PART 2*****

12. Type in LOAD "CTESTATE",8 then press RETURN. After 1/2 minute the word READY will appear, then type the word RUN and press the RETURN key.
13. You are now looking at the Main Menu of the GT Estate Wordprocessor. Remove the GT Estate Wordprocessor diskette, and insert a new, blank diskette. WARNING! If you use a diskette with data already on it, you will lose all of your data.
14. Press F, and wait until the red busy light on your disk drive goes out. You now have a formatted diskette.
15. Return to the beginning of Part 1.

APPENDIX C

NOTES TO A COMPUTER NOVICE

The purpose of this section is to acquaint the novice computer user with some of the realities of computers, and provide some guidelines to make the encounter with your computer pleasant, rather than exasperating.

The computer really isn't as smart as you have been led to believe. It won't be a cure all to your ills. In fact, if you don't plan accordingly, it could be the source of many ills. We hope the following suggestions will aid you preparing your letters, reports, charts, tables, etc.

1. Protect your diskettes. The floppy diskettes are not named that by accident; they can be bent or warped easily. Everyone has occasionally spilled something on a report, but you can still read a messy report. Don't plan on using a diskette after you spill something on it. It will most likely be ruined, and all the data on it will be lost. You can't be too careful with the diskettes. Keep them stored in their protective envelopes when not in use, and out of the reach of children (Hey, guys! Look at the little frisbee), curious neighbors, pets, and any other living beings who might fold, bend or mutilate them.

2. Keep multiple copies of anything you really care about. Even carefully protected diskettes aren't immune to failure; they have a limited lifetime. It is best to assume the lifetime will be short. If they last forever, great! If not, you will have another copy with everything on it so all will not be lost when they pass on to that Great Disk Drive in the sky.

3. As you are working, frequently stop and save what you have. As with the diskettes, the computer and its power are not immune from problems. Imagine that you have just spent three hours working on a report, and before you saved it, the power flickered (or your cat got tangled in the power cord and pulled it loose). Sooner or later you are going to lose something on which you have been working very hard. Make certain that you never lose more than 20 - 30 minutes of your effort.

4. As you are working and periodically saving your data, don't continually use the same file name over and over. If a disk error should occur while you are saving the file, it could make the file unretrievable from the diskette. A good way to guard against this is to add to the file name the current date and time; thus, each time it is saved it will be considered a new file. Yes, the diskettes will soon fill up. You can either keep plenty of diskettes lying around, or when the diskette is full, delete the oldest file to make room for the newest. It is a good rule is to plan ahead and stop problems before they start.

APPENDIX D

FINISHED LETTER

Alfred T. Littlebottom
Minnebusns Corporation
1500 Tinnehiney Highway
Port Arthur, Utah 80081

Jessica R. Palmer
A.N.T. Amusements, Inc.
One Chrysalis Plaza
Great Sting, NJ 10966

Dear Ms. Palmer:

Our accounting firm of Cromwell, Cromwell, Cromwell and Throckmorton have recently informed me that your company outlet, Paul's Parlor of Personal Hygiene Safety and Software in Pummel, New Jersey is 18 months overdue in payment of a sum totaling \$9400.00.

Our sales representative contacted your Pummel outlet in the first quarter of last year, and left 1000 pairs of our adult novelty footwear. A breakdown of the order is listed below.

According to our attorneys, you are the only corporate officer that has not been indicted for fraud or extreme jaywalking. We have taken the liberty of contacting you at your corporate offices hoping you could remedy this situation.

As of this date all our written inquiries to your office in Pummel have gone unanswered. All attempts to contact someone by phone at that location have resulted in a 3 minute recording of dialogue on the dangers of flossing while intoxicated.

We have even sent a company representative to the store location. He was greeted at the door by a large, exceedingly rude representative's briefcase.

Needless to say our reaction was swift and severe. We have already composed the third draft of a stern letter to the Pummel Better Business Bureau.

Although we sincerely hope our products meet or exceed your expectations, it would be appreciated if payment could be sent to our accounting office as soon as possible.

Sincerely,

A. J. Littlebottom

This is the second page.

ORDER FOR A.N.T. AMUSEMENTS, INC.

UNITS	TYPE	PRICE/UNIT	TOTAL
300	sponge	7.50	\$2250.00
500	rubber	8.25	\$4125.00
150	wood	12.50	\$1825.00
50	brass	24.00	\$1200.00

1000 UNITS TOTAL AMOUNT DUE \$9400.00

Invoice # 2389-J
Purchase Order # 774PNJ

ERRATA

Notes, Corrections & Updates

1. The Indus GT Disk Drive has been tested for complete compatibility with all current Commodore 64 hardware and software. In most cases, the GT will also operate with older versions of the Commodore 64; however, if you have any problems or want to know if your Commodore is of the most recent vintage, you can ascertain this information by typing:

PRINT PEEK (55408)

and then pressing the RETURN key. You be presented with a number that is to be interpreted as follows:

0 -- The oldest revision, #1.

179 -- The second revision, #2.

3 -- The third, and as of this date most current revision, #3.

If you have an older revision Commodore and are experiencing any problems, you can receive an updated ROM directly from Commodore by ordering their P/N 901227-03 from Commodore Customer Service, C2654, Westchester, PA 19380 (approximately \$15.00, plus shipping) and your unit will be up-to-date.

2. The GT Albert E. Spreadsheet has been updated with an autorun capability. To load the program, you merely type:

LOAD"GTALC",8,1

or you type:

LCAD "*",8,1

or you type:

%GTALC or %* (if the DOS WEDGE is used).

NOTICE

Indus System Inc. reserves the right to make improvements in the product described herein at any time and without notice.

DISCLAIMER

Indus Systems Inc. shall have no liability or responsibility to the purchaser or any other person or entity with respect to any liability, loss or damage caused or alleged to be caused directly or indirectly by this manual or its use, including but not limited to any interruption in service, loss of business and anticipatory profits or consequential damages resulting from the use of this product.